ABSTRACT OF THE DISCLOSURE

A semi-static distribution technique distributes parity across disks of an array. According to the technique, parity is distributed (assigned) across the disks of the array in a manner that maintains a fixed pattern of parity blocks among the stripes of the disks. When one or more disks are added to the array, the semi-static technique redistributes parity in a way that does not require recalculation of parity or moving of any data blocks. Notably, the parity information is not actually moved; the technique merely involves a change in the assignment (or reservation) for some of the parity blocks of each pre-existing disk to the newly added disk.